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VARIATIONS OF PARASEMIA PARTHENOS (ARCTIIDAE)

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FOR FORTY YEARS, I have been gathering Maine material in Parasemia parthenos Harris. It occurs in small numbers throughout the more rugged forested portion of the western, northwestern, northern and eastern portions of the State. The species extends north into the subarctic and, though apparently unrecorded, rarely to high elevations in North Carolina. From my own light traps, those operated by friends, and especially about 27 traps for 28 years of the Maine Forestry Department, I have handled many hundreds of P. parthenos. A number of specimens may be taken by a light trap one season and then none for a period of years. A selection of these is illustrated on the figure. Harris' type cannot be located, but his illustration of a male specimen (Harris 1950) from north of Lake Superior is much like the upper left hand specimen figured, an average marked specimen. Next below is figured the associated female. The ground color is chocolate brown, varying considerably, especially to a much lighter chocolate brown. It is a species of the opener forest land and arctic-alpine habitats. Some specimen localities can only be given in Maine as a township or the nearest settlement, often some distance away.

P. parthenos parvimaculata new variety. This variety is marked by greatly reduced maculation, and usually a darker chocolate brown ground color. Typical specimens have a short white basal mark, two or three small costal spots and often a preapical small white spot is present. The hindwings inside the orange border are more nearly completely black. This variety seems especially developed in Maine.



Fig. 1

Parasemia parthenos parthenos Harris; Column 1, top, and down; Parasemia parthenos parthenos Harris; Column 1, top, and down; typical δ , T18R12, Rocky Mountain, Aroostook Co., Me., 15 June; as-sociated φ , Kokadjo, Piscataquis Co., Me., 19 July; parthenos φ , Cling-mans Dome, Swain Co., No. Car., 6200 ft., 18 July 1946; P. p. parvimac-lata new variety, holotype δ , Creenville, Me., 29 July; P. p. parvimac-lata, new var. paratype δ , St. Francis, Aroostook Co., Me., 19 July. Column 2, top: P. p. multimaculata new variety, holotype δ , St. Francis, Me., 7 July; P. p. multimaculata new var., allotype φ , Dickey, Aroostook Co., Me, 15 July; P. p. obsolescens new aberration δ , Allagash, Aroostook Co., Me., 16 July; P.p. parvimaculata new var., holotype δ , Dennistown, Somerset Co., Me., 16 July; P. p. parvimaculata new var., allotype φ . Dennistown, Me., 18 July.

allotype 9, Dennistown, Me., 18 July.

Column 3, top: P. p. borealis Moesch., typical 3, Cartwright, Labr., 26 July, 1955, E. E. Sterns; *P. p. borealis* Moesch., δ, Schefferville, Que., 10 July, 1968, A. E. Brower; *P. p. borealis* Moesch, φ, Ft. Churchill, Man., 23 July, 1969, A. E. Brower; *P. p. borealis* Moesch., δ Mt. Jaques Cartier, 4000 ft., Gaspe, Que., 26 July, 1940 A. E. Brower; *P. p. parthenos* Harris, δ, St. Francis, Me., 12 July. Holotype 3 (The next to last specimen in column 2) St. Francis, Me., 19 July.

Allotype \circ (The last specimen in column 2) Dennistown, Me., 18 July.

Paratypes 18 males: Oquossoc, 12 July; Dennistown 13 July and 2 Aug.; T8R19, 2 Aug.; T13R12, 8 July; T14R16, 5 and 13 July; T15R9, DeBoulie Mt., 17 July; Allagash, 12 and 18 July and 6 Aug.; St. Francis, 6 Aug.; T18R12, Rocky Mt., two 6 July, 9 July, three 12 July; Kellyland (near Princeton), 12 July. Four females: Dennistown, 18 July; Greenville, 9 Aug.; Long A (near Millinocket), 16 July; Topsfield, 14 July.

P. parthanos multimaculata new variety characterized by an increase over typical, both in number and size of the white spots on the forewings. The t.p. line of spots exhibits this most markedly, and the larger spots are often confluent. The hindwings are variable as is usual.

Holotype \mathfrak{F} , (First specimen in column 2) St. Francis, Me., 12 July.

Allotype \mathfrak{P} (Second specimen in column 2) Dickey, Me., 5 July.

Paratypes 12 males: T8R19, 8 July; Chesuncook, 16 July; St. Francis, 16 July; T14R16, 10 and 13 July; Allagash, two 12 July; T18R12, 2 July, two 6 July, 12 July, 16 July, Six females: Long A (near Millinocket), 12 July; Pittston Farm (near Seboomook), 11 July; Dennistown, 13 and 16 July; T14R16, 23 July; T18R12 14 July.

P. parthanos obsolescens new aberration, has the whitish creamy spotting enlarged and confluent until the usual pattern is obliterated, all of the forewing being so colored except a basal streak into the cell, a narrow one along the inner margin, a reniform spot, a narrow line of s.t. spots and an irregular broad terminal band. The black on the hindwings is much reduced.

Holotype & Allagash, Me., 16 July.

P. parthanos borealis Moesch. Described from Labrador, this is a well-marked race of the species, characterized by its smaller size (57 mm; *P. p. parthanos* 66 mm), a red-brown color, and a more complete development of the pattern of spots. The black

on the hindwing is reduced on the average. Dr. T. N. Freeman at Ottawa sent me the first specimen in column 3 as typical. The writer has taken *borealis* on the mountains of the Gaspe, Que.; at Schefferville, Que., at the Labrador border, 1700 ft.; and at Churchill and Ft. Churchill, Manitoba. Some specimens from the boundary mountains of Maine and the eastern border of Maine seem intermediate. It is found by day resting in the open tundra or where tree growth is scant.

Type specimens of the varieties *parvimaculata* and *multimaculata* will be placed in the Canadian National Collection, the U. S. National Museum and other collections.

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